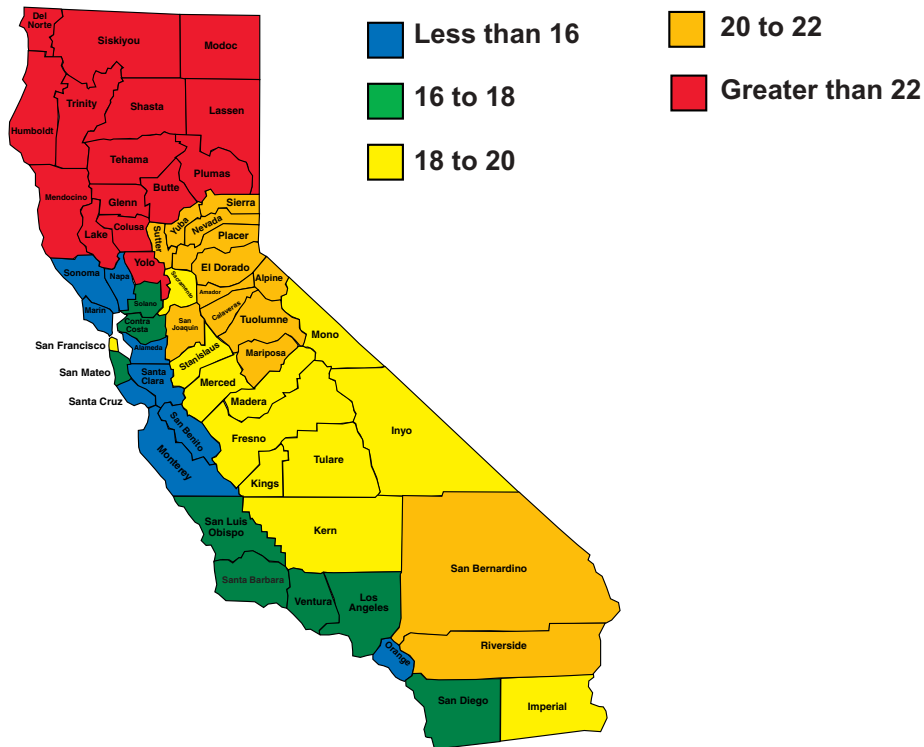


# Regional Smoking Prevalence

California Department of Health Services  
Tobacco Control Section • <http://www.dhs.ca.gov/tobacco>

**Figure 1 – California Adult Smoking Prevalence by Region**



**Table 1 – Adjusted Adult Smoking Prevalence by Region Within California**

Region	1990 %	1993 %	1996 %	1999* %
<b>Overall</b>	<b>19.6 (±0.4)</b>	<b>17.7 (±0.5)</b>	<b>17.0 (±0.3)</b>	<b>17.5 (±0.3)</b>
Los Angeles	19.5 (±1.2)	17.0 (±1.2)	16.6 (±0.8)	16.7 (±0.7)
San Diego	20.1 (±2.0)	16.4 (±1.8)	16.2 (±1.2)	17.8 (±1.4)
Orange	16.9 (±2.0)	16.1 (±1.8)	14.6 (±1.2)	15.5 (±1.0)
Santa Clara	17.0 (±2.0)	15.7 (±1.6)	13.0 (±1.2)	13.8 (±1.2)
San Bernardino	23.0 (±1.6)	20.1 (±1.8)	19.5 (±2.0)	21.2 (±1.7)
Alameda	19.3 (±2.0)	18.0 (±1.8)	17.8 (±1.6)	15.6 (±1.5)
Riverside	21.5 (±1.6)	17.6 (±1.6)	18.2 (±1.8)	20.4 (±1.5)
Sacramento	22.5 (±1.8)	21.8 (±2.0)	20.3 (±1.4)	19.4 (±1.6)
Contra Costa	19.1 (±1.4)	18.5 (±1.6)	17.0 (±1.6)	16.5 (±1.7)
San Francisco	19.0 (±2.0)	18.2 (±1.6)	19.0 (±1.8)	18.9 (±1.2)
San Mateo, Solano	18.0 (±1.4)	17.3 (±1.6)	16.4 (±1.6)	17.5 (±1.5)
Marin, Napa, Sonoma	18.9 (±1.8)	16.1 (±1.8)	16.1 (±1.6)	15.6 (±1.6)
Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, Trinity, Yolo	21.9 (±1.9)	20.9 (±1.8)	20.5 (±1.6)	22.7 (±1.9)
San Luis Obispo, Santa Barbara, Ventura	17.3 (±1.6)	17.9 (±1.6)	16.8 (±1.6)	16.9 (±1.6)
Alpine, Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, San Joaquin, Sierra, Sutter, Tuolumne, Yuba	22.1 (±2.4)	21.6 (±1.8)	20.4 (±1.6)	20.4 (±1.6)
Monterey, San Benito, Santa Cruz	17.0 (±1.6)	17.4 (±1.8)	15.7 (±1.8)	15.9 (±1.6)
Fresno, Madera, Merced, Stanislaus	22.1 (±1.8)	18.9 (±1.8)	18.7 (±1.8)	19.1 (±1.5)
Imperial, Inyo, Kern, Kings, Mono, Tulare	20.8 (±1.8)	19.3 (±2.0)	19.9 (±1.8)	19.4 (±1.4)

Source: California Tobacco Survey (CTS) screener survey of adults 18 or older 1990, 1993, 1996, and 1999.

Percentages and 95% confidence limits are weighted and standardized to the 1999 California population in order to cancel out rate changes caused by demographic shifts in the population between 1990 and 1999.

\*Adult smoking prevalence is based only on responses to the CTS screener surveys, which includes proxy data. The 1999 survey adopted a new definition of current cigarette smoking, resulting in the inclusion of more occasional smokers. Previous research has found the new definition inflates the smoking prevalence by 1-2 percentage points.

## Adult Regional Smoking Prevalence

The California Tobacco Survey (CTS), which is conducted by telephone every three years, provides adult and youth cigarette smoking prevalence estimates by region. In order to obtain a representative statewide sample, the CTS employed an “18 region” design to collect tobacco use information. The 18 regions include the 10 most populated counties and 8 groups of less populated counties that have similar characteristics.

As shown in Table 1, regional estimates for adults in 1999 ranged from 13.8±1.2% in Santa Clara County to 22.7±1.9% in the 15 county region located in the far northern part of the state (Butte, Colusa, Del Norte, etc.) (See Figure 1). From 1990 to 1999, rates declined in almost all of the regions. In most of the regions, the greatest declines happened between 1990 and 1996.

## Youth Regional Smoking Prevalence

California youth 30-day cigarette smoking prevalence measured by this telephone survey was  $7.8 \pm 0.7\%$  in 1999. Regional estimates ranged from  $4.9 \pm 2.3\%$  in Riverside County to  $15.3 \pm 7.6\%$  in San Francisco (Table 2). There were four regions with smoking prevalence rates higher than 10% (San Francisco, San Mateo and Solano counties, Butte, etc. and Alpine, etc.) It is notable that two comparatively rural regions (Butte, etc., and Alpine, etc.) had higher smoking prevalence for both adults and youth in 1999.

In 1990, ten regions had youth smoking prevalence rates higher than 10%. Only four regions had smoking prevalence at this higher level in 1999. From 1990 to 1999, most of the regions had a decrease in youth smoking prevalence. There were only four regions with increased youth prevalence rates. Among them, San Francisco County had the largest increase, from  $8.5 \pm 5.8\%$  to  $15.3 \pm 7.6\%$ . It should be noted that the sample size in the CTS youth survey was relatively small for each region, and that therefore the confidence interval of each prevalence estimate is wide. For that reason, most of the changes at the regional level are not statistically significant.

There was an increase in youth smoking from 1993 to 1996. Table 2 shows that teens were more likely to smoke in 1996 compared to 1993 in 14 of the 18 regions. However, a dramatic change in the opposite direction was observed between 1996 and 1999. In 1999, 16 of the 18 regions had lower youth smoking prevalence rates than in 1996. Among them, 11 regions had prevalence below the 1993 level. Between 1996 and 1999, the 3-county region of Marin, Napa and Sonoma had the most significant decline in youth smoking prevalence, from  $20.5 \pm 6.6\%$  to  $6.0 \pm 2.9\%$ , a 73% change.

Overall, both the adult and youth smoking prevalence rates significantly decreased in the 1990s. The overall disparities in smoking among California regions appear to be, at least in part, reflective of socioeconomic differences across the regions.

**Table 2 – Adjusted Current Youth Smoking Prevalence by Region Within California**

Region	1990 %	1993 %	1996 %	1999 %
<b>Overall</b>	<b>9.0 (<math>\pm 1.0</math>)</b>	<b>9.0 (<math>\pm 1.2</math>)</b>	<b>11.6 (<math>\pm 1.1</math>)</b>	<b>7.8 (<math>\pm 0.7</math>)</b>
Los Angeles	7.0 ( $\pm 2.5$ )	7.4 ( $\pm 2.7$ )	10.0 ( $\pm 1.9$ )	6.4 ( $\pm 1.6$ )
San Diego	7.3 ( $\pm 3.2$ )	9.2 ( $\pm 6.8$ )	8.5 ( $\pm 3.3$ )	9.2 ( $\pm 3.1$ )
Orange	10.1 ( $\pm 4.1$ )	8.9 ( $\pm 3.8$ )	14.8 ( $\pm 4.2$ )	8.9 ( $\pm 4.0$ )
Santa Clara	8.4 ( $\pm 2.8$ )	8.8 ( $\pm 7.3$ )	11.6 ( $\pm 4.7$ )	6.4 ( $\pm 2.8$ )
San Bernardino	12.7 ( $\pm 4.9$ )	10.3 ( $\pm 5.0$ )	11.0 ( $\pm 3.8$ )	5.7 ( $\pm 2.0$ )
Alameda	12.9 ( $\pm 5.0$ )	7.1 ( $\pm 8.6$ )	11.8 ( $\pm 4.6$ )	8.4 ( $\pm 3.8$ )
Riverside	10.2 ( $\pm 3.2$ )	7.3 ( $\pm 3.9$ )	12.6 ( $\pm 4.2$ )	4.9 ( $\pm 2.3$ )
Sacramento	6.3 ( $\pm 3.3$ )	8.4 ( $\pm 4.7$ )	14.6 ( $\pm 4.4$ )	9.0 ( $\pm 4.2$ )
Contra Costa	8.7 ( $\pm 4.0$ )	8.8 ( $\pm 3.9$ )	10.7 ( $\pm 4.0$ )	8.2 ( $\pm 3.7$ )
San Francisco	8.5 ( $\pm 5.8$ )	7.8 ( $\pm 6.7$ )	10.7 ( $\pm 7.2$ )	15.3 ( $\pm 7.6$ )
San Mateo, Solano	11.6 ( $\pm 5.5$ )	13.1 ( $\pm 13.3$ )	12.5 ( $\pm 4.7$ )	11.1 ( $\pm 5.8$ )
Marin, Napa, Sonoma	14.5 ( $\pm 9.7$ )	18.7 ( $\pm 11.0$ )	20.5 ( $\pm 6.6$ )	6.0 ( $\pm 2.9$ )
Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, Trinity, Yolo	15.0 ( $\pm 4.5$ )	12.2 ( $\pm 6.9$ )	17.3 ( $\pm 4.6$ )	11.8 ( $\pm 5.6$ )
San Luis Obispo, Santa Barbara, Ventura	11.7 ( $\pm 4.0$ )	13.0 ( $\pm 6.2$ )	10.2 ( $\pm 3.4$ )	5.0 ( $\pm 2.8$ )
Alpine, Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, San Joaquin, Sierra, Sutter, Tuolumne, Yuba	11.6 ( $\pm 5.1$ )	8.9 ( $\pm 6.5$ )	13.9 ( $\pm 4.1$ )	10.4 ( $\pm 4.9$ )
Monterey, San Benito, Santa Cruz	11.2 ( $\pm 5.5$ )	10.9 ( $\pm 17.1$ )	6.9 ( $\pm 2.7$ )	7.6 ( $\pm 3.8$ )
Fresno, Madera, Merced, Stanislaus	7.6 ( $\pm 3.2$ )	10.5 ( $\pm 6.4$ )	15.5 ( $\pm 4.1$ )	9.3 ( $\pm 2.5$ )
Imperial, Inyo, Kern, Kings, Mono, Tulare	7.7 ( $\pm 3.8$ )	9.9 ( $\pm 9.8$ )	9.2 ( $\pm 3.5$ )	7.4 ( $\pm 2.5$ )

Percentages and 95% confidence limits are weighted and adjusted to the 1999 California population.  
Source: California Tobacco Survey (CTS) survey of youth ages 12 - 17 1990, 1993, 1996, and 1999.

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